

A map of Tehama County, California, showing the locations of walnut blight control investigations in 2006. The map is white with black outlines for county boundaries and individual parcels. Black dots and clusters of dots are scattered across the county, indicating the locations of investigations. The highest concentration of dots is in the northern and central parts of the county, with some smaller clusters in the southern and eastern parts.

Walnut Blight Control Investigations using Breakthru in Tehama County 2006

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Treatments for the Breakthru Rate plot:

University Treatment (4/24 and 5/1/06)	Rate
1. Kocide 2000 + Manex	6 lbs. + 58 oz./Ac.
2. Kocide 2000 + Manex + Breakthru	6 lbs. + 58 oz./Ac. + 8 oz./100 gal.
3. Kocide 2000 + Manex + Breakthru	6 lbs. + 58 oz./Ac. + 16 oz./100 gal.
4. Kocide 2000 + Manex + Breakthru	6 lbs. + 58 oz./Ac. + 32 oz./100 gal.
5. Kocide 2000 + Manex + Breakthru	6 lbs. + 58 oz./Ac. + 64 oz./100 gal.

Figure 2. Treatments and rates for the first two blight sprays. University application 4/24 and 5/1/06.

Grower Treatment (5/4, 5/14 and 5/24/06)	Rate
1. Kocide 2000 + Manex + Breakthru + KNO3	4.5 lbs. + 58 oz. + 6 oz. + 5 lbs./Ac.

Figure 3. Treatments and rates for the remaining blight sprays applied on 5/4, 5/14 and 5/24/06 (half sprays) by grower.

Breakthru Rate Evaluation

Treatment (first 2 sprays)	% Low	% High	% Average
K ¹ + M ² + Breakthru – 0 oz.	6.68 a ³	3.44 a	5.06 a
K + M + Breakthru – 8 oz.	3.42 a	1.62 a	2.52 a
K + M + Breakthru – 16 oz.	4.64 a	1.92 a	3.28 a
K + M + Breakthru – 32 oz.	6.24 a	2.37 a	4.31 a
K + M + Breakthru – 64 oz.	7.92 a	2.41 a	5.17 a
Untreated Control ⁴	17.34	12.49	14.92

¹K = Kocide 2000 @ 6 lbs./Ac.

²M = Manex @ 58 oz./Ac.

³Duncan's multiple range test for treatment means at the 5% level.

⁴Untreated control trees were not part of the randomized complete block design

Figure 6. Blight counts for the Breakthru treatments.

Bud Break Evaluation

Terminal Bud Break

<u>Date</u>	<u>% Bud Break</u>
4/8/06	5.0%
4/13/06	25.9%
4/18/06	33.5%
4/25/06	59.3%
4/28/06	72.8%
5/5/06	73.2% (full bloom)
5/12/06	77.5%

Figure 7. Bud break evaluations for Chandler walnuts in 2006. Cone Grove location.